CLAIMS

1. A local site communication system providing wireless communication with a mobile terminal in a local site and cooperating with a public communication system including a public service telephone network and a cellular communication network having a plurality of radio base stations covering a plurality of cells where switching of mobile terminal communication links with said public communication system is controlled by a mobile switching center, said local site communication system comprising:

a broadband connection between said local site and an internet;

a wireless local site network in said local site and communicating data between said broadband connection and said mobile terminal when said mobile terminal is located in said local site; and

a cyber base station connected to the internet and communicating data between said broadband connection and said mobile switching center whereby said mobile terminal when located at said local site connects to said public communication system via said wireless local site network, said broadband connection, the internet and said cyber base station.

2. The local site communication system of claim 1, further comprising a voice client converting data between wireless signals on said wireless local site network and internet protocol signals on said broadband connection.

3. The local site communication system of claim 2, wherein said voice client adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

4. The local site communication system of claim 2, wherein said data communicated by said cyber base station includes a neighbor cell list for said local site communication system.

5. The local site communication system of claim 1, wherein said cyber base station communicates information on a control channel, and said control channel information includes internet protocol addresses.

6. The local site communication system of claim 1, wherein said cyber base station mimics a radio base station to said mobile switching center.

7. The local site communication system of claim 1, wherein said wireless local site network is a Bluetooth and said local site communication system communicates with a mobile terminal having cellular and Bluetooth communication interfaces.

8. The local site communication system of claim 1, wherein said local site communication system provides wireless communication with mobile terminals in a plurality of local sites each having

a broadband connection to the internet, and

a wireless local site network communicating data between said broadband connection and a selected mobile terminal when said selected mobile terminal is located at said local site; and

said cyber base station communicates data between said broadband connections and said mobile switching center.

9. The local site communication system of claim 8, wherein said cyber base station mimics a radio base station to said mobile switching center.

10. The local site communication system of claim 8, wherein said broadband connections are cables.

11. The local site communication system of claim 1, wherein said local site is located in one of said plurality of cells covered by one of said radio base stations, and wherein switching of said mobile terminal communication links of said cyber base station with said public communication system is controlled by said mobile switching center controlling switching of said mobile terminal communication links of said one radio base station with said public communication system.

12. A wireless communication system, comprising:

a plurality of cells each served by a radio base station via wireless signals;

a plurality of low power wireless local site networks located in said cells, said wireless local site networks served by a cyber base station via an internet and including a low power transceiver for communicating with mobile terminals;

a mobile switching center controlling said cyber base station and said radio base stations.

13. The wireless communication system of claim 12, wherein said cyber base station communicates information on a control channel, and said control channel information includes internet protocol addresses.

14. The wireless communication system of claim 12, further comprising a voice client at each of said wireless local site networks, said voice clients converting data between wireless signals on said wireless local site network and internet protocol signals on the internet.

15. The local site communication system of claim 14, wherein said voice client at each of said wireless local site networks adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

16. The local site communication system of claim 12, wherein said cyber base station mimics said radio base stations to said mobile switching center.

17. The wireless communication system of claim 12, wherein said cells each have a list of neighboring cells, and said cyber base station is included in said list of neighboring cells for each of said cells within which said plurality of low power wireless local site networks is located.

18. The wireless communication system of claim 12, wherein each of said wireless local site network is a Bluetooth.

19. The wireless communication system of claim 12, further comprising broadband connections between said wireless local site networks and the internet.

20. The wireless communication system of claim 19, wherein said broadband connections are cables.

21. The wireless communication system of claim 12, wherein said mobile switching center controls said cyber base station like a pico base station.

22. A wireless local site network providing wireless communication with a selected mobile terminal in a local site having a broadband connection to an internet and cooperating with a communication network having a plurality of base stations covering a plurality of cells where switching of mobile terminal communication links with said communication network is controlled by a mobile switching center and further cooperating with a cyber base station connected to the internet and also controlled by the mobile switching center, said wireless local site network comprising:

an interface to the internet for communicating between said wireless local site network and said cyber base station;

a transceiver for communicating with a mobile terminal when a mobile terminal is located at said local site; and

a voice client converting between wireless data used by said transceiver and internet protocol data used by said interface.

23. The wireless local site network of claim 22, wherein said voice client adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

24. A method of handing off a mobile terminal from a first traffic channel with a first cell to a second traffic channel of a second cell during a call, wherein one of said cells communicates via a high power wireless base station and the other of said cells communicates via a low power wireless local site network and an internet, comprising

determining whether to execute a handoff from said first cell to said second cell;

creating said second traffic channel when it is determined to execute a handoff; and

when said second traffic channel is created, moving said call to said second traffic channel and terminating said first traffic channel;

wherein one of said first and second traffic channels is an internet traffic channel for communicating via the internet using internet protocol and the other of said first and second traffic channels is a radio channel for communicating via said high power wireless base station.

25. The method of claim 24, wherein said one traffic channel routes data to an internet protocol address.

26. The method of claim 24, wherein said first traffic channel is said internet traffic channel and said second traffic channel is said radio channel.

27. The method of claim 24, wherein said first traffic channel is said radio channel and said second traffic channel is said internet traffic channel.

28. The method of claim 24, wherein:

said first and second traffic channels communicate with first and second base stations respectively and said first and second base stations communicate with a mobile switching center; and

said mobile switching center determines whether to execute a handoff and instructs said first and second base stations when to create said second traffic channel and terminate said first traffic channel.

29. The method of claim 28, wherein data communicated by said first and second base stations include neighbor cell lists.

30. The method of claim 24, wherein said determining whether to execute a handoff from said first cell to said second cell is based on reported strengths of the signals received from said first and second cells, wherein the reported signal strength with said other of said cells communicating via a low power wireless local site network is greater than the actual strength of the received signal.

31. A method of placing a call via a mobile switching center to a mobile terminal registered in a location area having a plurality of cells and a cybercell, comprising:

transmitting a page message from said mobile switching center to radio base stations in the location area and to a cyber base station serving said cybercell;

transmitting a wireless signal with said page message by said radio base stations;

transmitting an internet message with said page message by said cyber base station;

transmitting a low power wireless signal with said page message by a low power wireless local site network serving said cybercell;

responding from said mobile terminal to the base station serving the cell providing service to the mobile terminal, where when said mobile terminal is being provided service by a wireless local site network serving a cybercell, said mobile terminal response is sent to said cyber base station as an internet protocol response message via said internet; and

establishing a voice path from said mobile terminal to said mobile switching center via said wireless local site network, the internet and said cyber base station.

32. The method of claim 31, wherein said voice path carries data in internet protocol packets between said cyber base station and said wireless local site network.

33. The method of claim 32, wherein a voice client at said wireless local site network adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.

34. A method of placing a call to a phone via a mobile switching center from a mobile terminal served by a cybercell, comprising:

transmitting a call origination message from said mobile terminal to a wireless local site network serving said cybercell;

transmitting an internet protocol message with said origination message from the wireless local site network over an internet to an internet protocol address at a cyber base station providing an interface to said mobile switching center;

paging the called phone; and

establishing a voice path from said mobile terminal to said mobile switching center via said wireless local site network, the internet and said cyber base station.

35. The method of claim 34, wherein said wireless local site network is connected to the internet by an always-on broadband connection, and said transmitting an internet protocol message with said origination message from the wireless local site network over the internet to an internet protocol address at a cyber base station comprises transmitting said internet protocol message on said always-on broadband connection.

36. The method of claim 34, wherein said voice path carries data in internet protocol packets between said cyber base station and said wireless local site network.

37. The method of claim 36, wherein a voice client at said wireless local site network adds internet protocol overhead to data received from said mobile terminal and to be sent from said wireless local site network to said cyber base station, and removes internet protocol overhead from data received from said cyber base station.